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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/516,890	12/03/2004	Etienne Degand	4004-064-30 NATL	1708

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Piper Rudnick
Supervisor Patent Prosecution Services
1200 Nineteenth Street, NW
Washington, DC 20036-2412

EXAMINER	
JEFFERY, JOHN A	

ART UNIT	PAPER NUMBER
3742	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/516,890	DEGAND ET AL.	
	Examiner	Art Unit	
	John A. Jeffery	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-22 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-22 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 03 December 2004 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 20050603.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Title of Invention

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Heatable Glazing Panel With Electrically Conductive Coating Having Both Heatable and Non-Heatable Coated Zones."

Abstract

The abstract of the disclosure is objected to because of the following informalities:

The abstract is too general. As written, the abstract is equally readable on the prior art. The abstract must be rewritten to emphasize that which is new in the disclosure (i.e., the glazing's electrically conductive coating having both heatable and non-heatable coated zones). Correction is required. See MPEP § 608.01(b).

Disclosure Objections

The disclosure is objected to because of the following informalities:

All references to claim numbers in the specification (e.g., Page 1, Para. 4) must be changed to more generic terminology since the scope, content, and numbering of the claims can change throughout prosecution. Appropriate correction is required.

Claim Objections

Claims 8, 10, and 11 are objected to because of the following informalities:

Claim 8: In line 3, "zone" must be inserted after "passive."

Claim 10: In lines 8-9, the parenthetical expression (along with the parentheses symbols) must be changed to "of surface area of the passive coated zone to the surface area of the adjacent active coated zone" for clarity.

Claim 11: In line 3, "μm" must be inserted after "150."

Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-12, 15, and 18 are rejected under 35 USC 102(b) as being anticipated by GB2186769. GB2186769 discloses an electrically heatable glazing panel with a transparent electrically conductive coating layer comprising heatable active coated zones adjacent to passive non-heatable coated zones. See Figs. 2-5, 9, and 15. See also P. 1, lines 70-99. The passive non-heatable coated zones are those coated areas within the periphery of non-conductive slits 34. Because busbar 33a is longer than busbar 33b in at least Figs. 2, 3, and 5-7, the bus bars inherently diverge at at least one

portion along their lengths.[1] See the annotated figures from GB2186769 below for clarity.

Regarding claim 6, the arrangement shown in Figs. 2 and 5 of GB2186769 inherently forms adjacent heatable and non-heatable "strips."

Regarding claim 7, note that the conductive portions (i.e., those portions other than non-conductive portions 34 (i.e., including non-heatable coated zones within the circumference of the non-conductive portions 34)) are 10-50 mm.

Regarding claim 10, the leftmost and rightmost non-heatable coated zones in Fig. 5 of GB2186769 fully read on the claimed "first glazing portion" and "second glazing portion" respectively.

Regarding claim 11, the outermost slits 34 constitute the "zone boundaries." Each slit is 100 μm or less. See P. 1, line 129 – Page 2, line 2.

Regarding claim 12, Fig. 2 of GB2186769 shows at least 50% of the coating's surface area comprising active coated zones.

Regarding claim 18, see P. 3, lines 102-103.

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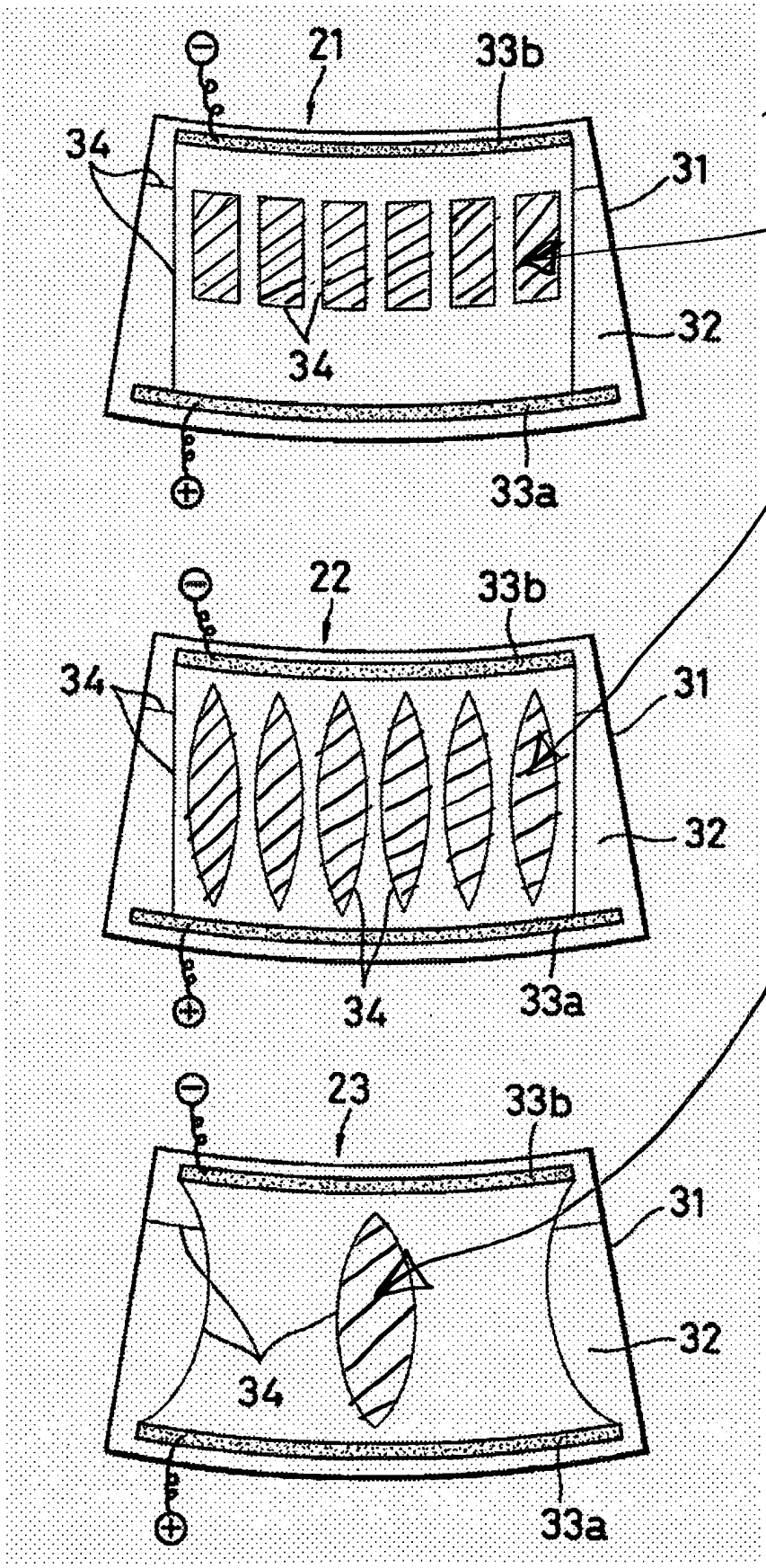
[1] The broadest reasonable interpretation of "diverge" does not preclude the busbar structure of GB2186769 because "diverge" is defined as "to follow a different direction, or to be or become different." (emphasis added.) See Cambridge Dictionaries Online, at http://dictionary.cambridge.org/define.asp?key=22787&dict=CALD (last visited Aug. 1, 2005). At a minimum, the busbars "become different" in view of their disparate lengths.



Passive non-heatable coated zones are shaded (▨)

Joint Inventors -- Common Ownership Presumed

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103, the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligations under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103.

Claim Rejections - 35 U.S.C. § 103(a)

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 13, 14, 16, 17, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB2186769 in view of WO00/72635. The claims differ from GB2186769 in calling for a solar control coating and a resistance of 2-25 ohms per

square. But electrically-heatable solar control coatings for glazing panels is well known in the art. WO00/72635, for example, discloses an electrically-heatable solar control coating used to heat automotive glass. See abstract. As is well known in the art, solar control coatings not only are electrically heatable, they also reduce incident solar energy while allowing visible light to pass therethrough. See P. 1, lines 17-28. Moreover, as is well known in the art, such electrically heatable coatings have resistances from 2-4, and in some cases, 8-20 ohms per square. See P. 3, lines 20-30. In view of WO00/72635, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a solar control coating in the apparatus of GB2186769 to provide a coating that was not only electrically heatable along the surface of the glazing, but also reduces incident solar energy while allowing visible light to pass therethrough.

The claims also differ from GB2186769 in calling for the coating to be provided on a flexible sheet forming part of the panel. But forming coatings on flexible sheets in glazing panels is well known in the art as evidenced by WO00/72635 on P. 4, lines 1-3. Such a feature would enable laminating the panel with a pre-coated flexible sheet, thus precluding the need to have expensive coating and deposition equipment on hand during manufacture. In view of WO00/72635, it would have been obvious to one of ordinary skill in the art at the time of the invention to form the coating on a flexible sheet in the previously described apparatus to enable laminating the panel with a pre-coated flexible sheet, thus precluding the need to have expensive coating and deposition equipment on hand during manufacture.

The claims also differ from GB2186769 in calling for the temperature variation to be less than 15 degrees C following voltage application and equilibrium. Fabricating a glazing panel with a heatable coating to uniformly heat the panel notwithstanding the presence of discontinuities in the coating, however, is well known in the art. WO00/72635 discloses providing an electrically conductive band to bound a data transmission window (discontinuity) in the coating to more uniformly heat the panel and minimize perturbations. See abstract and P. 5, lines 6-20. In view of WO00/72635, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide means to uniformly heat the panel notwithstanding the presence of discontinuities in the coating to minimize heating perturbations and hot spots along the panel.

The claims also differ from GB2186769 in calling for the panel to be thermally toughened. But such a toughening technique is well known in the art as evidenced by WO00/72635 in P. 5, line 3 (disclosing tempering). In view of WO00/72635, it would have been obvious to one of ordinary skill in the art at the time of the invention to thermally toughen the panel, such as tempering, to increase the panel's durability and strength.

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over GB2186769 in view of Spagnoli et al (US 5,466,911). The claims differ from GB2186769 in calling for the glazing to be an automotive side window and to have at least one acute angle. But electrically-heated automotive side windows are well known

in the art. Spagnoli et al (US 5,466,911), for example, discloses an electrically heated glazing for a vehicle's side window for deicing so that the rear view mirror 112 can be observed through the window. See Fig. 1A. Note also the glazing's acute angle. In view of Spagnoli et al (US 5,466,911), it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the glazing for a vehicle side window in the previously described apparatus to clear ice from the side window so that the rear view mirror can be observed through the window.

Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB2186769 in view of Spagnoli et al (US 5,466,911) and further in view of McMaster (US 3,475,588) and further in view of Marriott (US 4,119,425). The claim differs from the previously cited prior art in calling for the glazing panel to be substantially triangular. But conforming trapezoidal glazing panels are well known in the art as evidenced, for example, by McMaster (US 3,475,588). In Fig. 1, McMaster (US 3,475,588) discloses a trapezoidal, electrically-heated glazing panel D that forms a conforming side window. In view of McMaster (US 3,475,588), it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a trapezoidal glazing panel in the previously described apparatus to form a conforming side window.

Although the panel D of McMaster (US 3,475,588) has four sides, forming a conforming an electrically-heated side window with three sides such that it is substantially triangular is well known in the art as evidenced by Marriott (US 4,119,425) noting electrically-heated, triangular conforming side windows 13 in Figs. 1-3. Such an

arrangement uses less glass in manufacture than trapezoidal conforming windows. In view of McMaster (US 3,475,588), it would have been obvious to one of ordinary skill in the art at the time of the invention to form the conforming side window with a triangular shape in the previously described apparatus to minimize the amount of glass used in manufacture, thus reducing cost.

Other Pertinent Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant should (1) separately consider the art, and (2) consider the art together with the previously cited prior art for potential applicability under 35 U.S.C. §§ 102 or 103 when responding to this action. US 983 (Figs. 6 and 7), GB 179, US 581, US 824, US 619, US 920, US 586, WO 564, US 419, US 357, US 092, US 396, EP 141 disclose heatable transparencies using zone heating relevant to the instant invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Jeffery whose telephone number is (571) 272-4781. The examiner can normally be reached on Monday - Thursday from 7:00 AM to 4:30 PM. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans, can be reached on (571) 272-4777. All faxes should be sent to the centralized fax number at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JOHN A. JEFFERY
PRIMARY EXAMINER

8/3/05